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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,058	06/17/2002	Yasuhiro Kinoshita	M 6726 PCT/US	6717

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EXAMINER

ANTHONY, JOSEPH DAVID

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/088,058	Applicant(s) KINOSHITA ET AL.	
	Examiner Joseph D. Anthony	Art Unit 1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09/16/04 as an RCE and IDS.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Miki et al. U.S. Patent Number 5,397,638.

Miki et al teach a resin-coated steel sheet having good electrocoatability and weldability, characterized in that the resin coating is formed on the layer of zinc plating or zinc alloy plating (with or without subsequent chromate treatment) and is composed mainly of urethane resin containing (a) either colloidal silica **and/or** a silane coupling agent and (b) a phosphate of Al, Ba, Ca, Co, Fe, Mg, Mn or Zn in an amount of 0.01-35 wt % (with or without an additional organic pigment fine powder in an amount of 0.01-40 wt %), see abstract, and claims. . Applicant's claims are deemed to be anticipated over Examples 3, 5 and 10-11 In

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Table 1, which all teach aqueous coating compositions comprising urethane resin, silane coupling agent, colloidal silica and a phosphate salt. The particle size of the colloidal silica and phosphate salt are both less than 1.0 micrometers. In the alternative, it is unclear from the said examples if the taught coating compositions are applied to a metal substrate using applicant's process step of: "drying said layer of liquid composition, without removing any of said liquid by any other method than volatilization, to form a dry coating" as set forth in applicant's claims 5-8. It would have been obvious to one having ordinary skill in the art to use the board disclosure of Miki et al as motivation to coating a metal substrate using applicant's claimed process step of "drying said layer of liquid composition, without removing any of said liquid by any other method than volatilization, to form a dry coating" since such comes within the broad disclosure of the patent. In any case, such a method of drying a coating is notoriously well known in the art that it would have been once envisaged. In any case, applicant has set forth no evidence of criticality for such a process step.

4. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miki et al. U.S. Patent Number 5,397,638.

Miki et al has been described above and differs from applicant's claimed invention in that there is no direct teaching (i.e. by way of an example) to where a coating composition is taught that actually comprises a silane-coupling agent within applicant's claimed concentration range. It would have been obvious to

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one having ordinary skill in the art to use the broad disclosure of the patent as strong motivation to actually make coating compositions that comprised a silane-coupling agent within applicant's claimed concentration range. It should be noted that the patent's examples were set forth by way of illustration and not by way of limitation.

5. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hara et al. U.S. Patent Number 4,659,394.

Hara et al teach a process for the preparation of a highly anticorrosive surface-treated steel plate. This process comprises the steps of subjecting a surface of a steel plate having a plating layer of the zinc or aluminum type deposited thereon to a chromate treatment to form a chromate film, treating the steel plate with an organic composite silica solution comprising an epoxy resin or an acrylic resin in an amount exceeding a certain level as an indispensable component and a curing agent optionally incorporated therein to form an organic composite silicate film comprising colloidal silica, organic resin and silane formed on the chromate film, and heat-treating the steel plate at a specific temperature, see abstract, examples, such as example 1, and the claims. The concentration of the silane agent used is preferably 0.5 to 15% by weight based on the weight of the (epoxy resin or acrylic resin) + silica, see column 10, lines 27-33. Note that (A) in Example 1 teaches the synthesis of acrylic composite silicate containing a

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silane, whereas (B) in Example 1 teaches the synthesis of epoxy composite silicate containing silane.

Hara et al differs from applicant's claimed invention in the following ways:

1) there is no direct teaching (i.e. by way of an example) to where a coating composition is taught that actually comprises a silane coupling agent within applicant's claimed concentration range., and 2) it is unclear from the said examples if the taught coating compositions are applied to a metal substrate using applicant's process step of: "drying said layer of liquid composition, without removing any of said liquid by any other method than volatilization, to form a dry coating" as set forth in applicant's claims 5-8. It would have been obvious to one having ordinary skill in the art to use the broad disclosure of Hara et al as motivation to coating a metal substrate using applicant's claimed process step of "drying said layer of liquid composition, without removing any of said liquid by any other method than volatilization, to form a dry coating" since such comes within the broad disclosure of the patent. In any case, such a method of drying a coating is notoriously well known in the art that it would have been once envisaged. In any case, applicant has set forth no evidence of criticality for such a process step.

It would also have been obvious to one having ordinary skill in the art to use the broad disclosure of the patent as strong motivation to actually make coating compositions that comprised a silane-coupling agent within applicant's

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claimed concentration range. It should be noted that the patent's examples were set forth by way of illustration and not by way of limitation.

6. The following cited United States Patent Application Publications are not prior-art over applicant's claimed invention because they all have effective filing dates after applicant's claimed effective filing dates. 1) Bittner et al. US 2004/0054044 A1, 2) Jung et al. US 2004/0062878 A1, 3) Jung et al. US 2004/0022950 A1, 4) Paiva et al. US 2004/0068035 A1, 5) Sasaki et al. US 2001/0020066 A1, 6) Shimakura et al. US 2004/0009300 A1, and 7) shimakura et al. US 2001/0054455 A1. Nevertheless, the subject matter of the claims of the said publications raise serious questions of possible interference issues with applicant's pending claims assuming applicant's claims are found patentable at some further time and the said US Patent Application publications are found patentable. Applicant's comments are welcomed to address these potential issues.

Examiner Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Joseph D. Anthony whose telephone number is (571) 272-1117. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (571) 272-1119. The centralized FAX machine number is (703) 872-9306. All other papers received by FAX will be

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treated as Official communications and cannot be immediately handled by the Examiner.



Joseph D. Anthony
Primary Patent Examiner
Art Unit 1714

10/18/04